

OBSERVATIONS & RECOMMENDATIONS

After reviewing data collected from **ROCKYBOUND POND** the program coordinators recommend the following actions.

FIGURE INTERPRETATION

- Figure 1: These graphs illustrate concentrations of chlorophyll-a in the water column. Algae are microscopic plants that are a natural part of lake ecosystems. Algae contain chlorophyll-a, a pigment necessary for photosynthesis. A measure of chlorophyll-a can indicate the abundance of algae in a lake. The historical data (the bottom graph) show a *fairly stable* in-lake chlorophyll-a trend. Chlorophyll concentrations were consistent with those of last season. The increased rainfall did not cause an excess of algal growth due to an increase in nutrients being washed into the lake. Mean chlorophyll concentrations have remained below the NH mean reference line for 10 years! While algae are present in all lakes, an excess amount of any type is not welcomed. Concentrations can increase when there are external and internal sources of phosphorus, which is the nutrient algae depend upon for growth. It's important to continue the education process and keep residents aware of the sources of phosphorus and how it influences lake quality.
- Figure 2: Water clarity is measured by using a Secchi disk. Clarity, or transparency, can be influenced by such things as algae, sediments from erosion, and natural colors of the water. The graphs on this page show historical and current year data. The lower graph shows a *stable* trend in lake transparency. Water clarity continues to be above the average for NH lakes, and increased slightly this season. The 2000 sampling season was considered to be wet and, therefore, average transparency readings were slightly lower than last year's readings in most of the state. Rockybound Pond was not seemingly affected by the wetter conditions. Higher amounts of rainfall usually cause more eroding of sediments into the lake and streams, thus decreasing clarity.
- Figure 3: These figures show the amounts of phosphorus in the epilimnion (the upper layer in the lake) and the hypolimnion (the lower layer); the inset graphs show current year data. Phosphorus is the limiting nutrient for plants and algae in New Hampshire waters. Too much phosphorus in a lake can lead to increases in plant growth

over time. These graphs show a *slightly improving* trend for epilimnetic levels, which means levels are decreasing, but *variable* for the hypolimnion. Epilimnetic phosphorus concentrations remained low this season, however, hypolimnetic phosphorus concentrations increased. The dissolved oxygen level in the hypolimnion was depleted in September. Please consult the Other Comments section below for a more detailed explanation. One of the most important approaches to reducing phosphorus levels is educating the public. Humans introduce phosphorus to lakes by several means: fertilizing lawns, septic system failures, and detergents containing phosphates are just a few. Keeping the public aware of ways to reduce the input of phosphorus to lakes means less productivity in the lake. Contact the VLAP coordinator for tips on educating your lake residents or for ideas on testing your watershed for phosphorus inputs.

OTHER COMMENTS

- The process of decomposition in the sediments depletes dissolved oxygen on the bottom of thermally stratified lakes. As bacteria break down organic matter, they deplete oxygen in the water. When oxygen gets below 1 mg/L, phosphorus normally bound up in the sediments may be released into the water column, a process that is referred to as *internal loading*. Depleted oxygen in the hypolimnion usually occurs as the summer progresses. Dissolved oxygen was depleted in the last two meters of the lake by September this year. This explains the higher phosphorus in the hypolimnion (lower water layer) versus the epilimnion (upper layer). Since an internal source of phosphorus to the lake is present, limiting or eliminating external phosphorus sources in the lake's watershed is even more important for lake protection. This internal load of phosphorus did not cause any excess algal growth, which is a positive sign.
- There was a spike in dissolved oxygen at 6 meters in September (Table 9). Oxygen saturation was above 100% at this depth. This is typical of a layer of algae sitting at that depth. Algae release oxygen as a product of photosynthesis. The plankton haul was collected from 5 meters to the surface and would likely not represent the layer of algae at 6 meters. The dominant algae at that time were the golden-brown algae *Chrysosphaerella* and *Dinobryon*, and the dinoflagellate *Ceratium*. These species are typically not nuisance algae. However, the blue-green alga *Microcystis* was present in the lake last season and may have constituted the layer of algae at 6 meters. The Secchi disk was visible to 6 meters, so it is possible that the light was sufficient for this alga to grow. *Microcystis* is able to adjust its depth in the water column and does so according to nutrient levels and light intensity. In the future, we might want to take a plankton haul one meter deeper if we notice a spike in dissolved oxygen saturation.

- *E. coli* originates in the intestines of warm-blooded animals (including humans) and is an indicator of associated and potentially harmful pathogens. Bacteria concentrations at Homa W-3 were 24 counts per 100 mL, which is well below the state standard of 406 counts per 100 mL for Class B surface waters (Table 12). If residents are concerned about septic system impacts, testing when the water table is high or after rains is best. Please consult the Other Monitoring Parameters section of the report for the current standards for *E. coli* in surface waters.
- The phosphorus concentration at site W-1 was lower this year than last (Table 8), after several years of high results. We hope this trend will continue.

NOTES

- Monitor's Note (7/3/00): Frequent heavy rains during past month.

USEFUL RESOURCES

Shorelands Under the Protection of the Comprehensive Shoreland Protection Act, WD-BB-34, NHDES Fact Sheet. (603) 271-3503 or www.state.nh.us

The Wetlands Resource, WD-WB-7, NHDES Fact Sheet, (603) 271-3503 or www.state.nh.us

Bacteria in Surface Waters, WD-BB-14, NHDES Fact Sheet, (603) 271-3503 or www.state.nh.us

A Brief History of Lakes, NH Lakes Association pamphlet, (603) 226-0299 or www.nhlakes.org

In Our Backyard. 1994. Terrence Institute, 4 Herbert St., Alexandria, VA. 22305, or call (800) 726-4853.

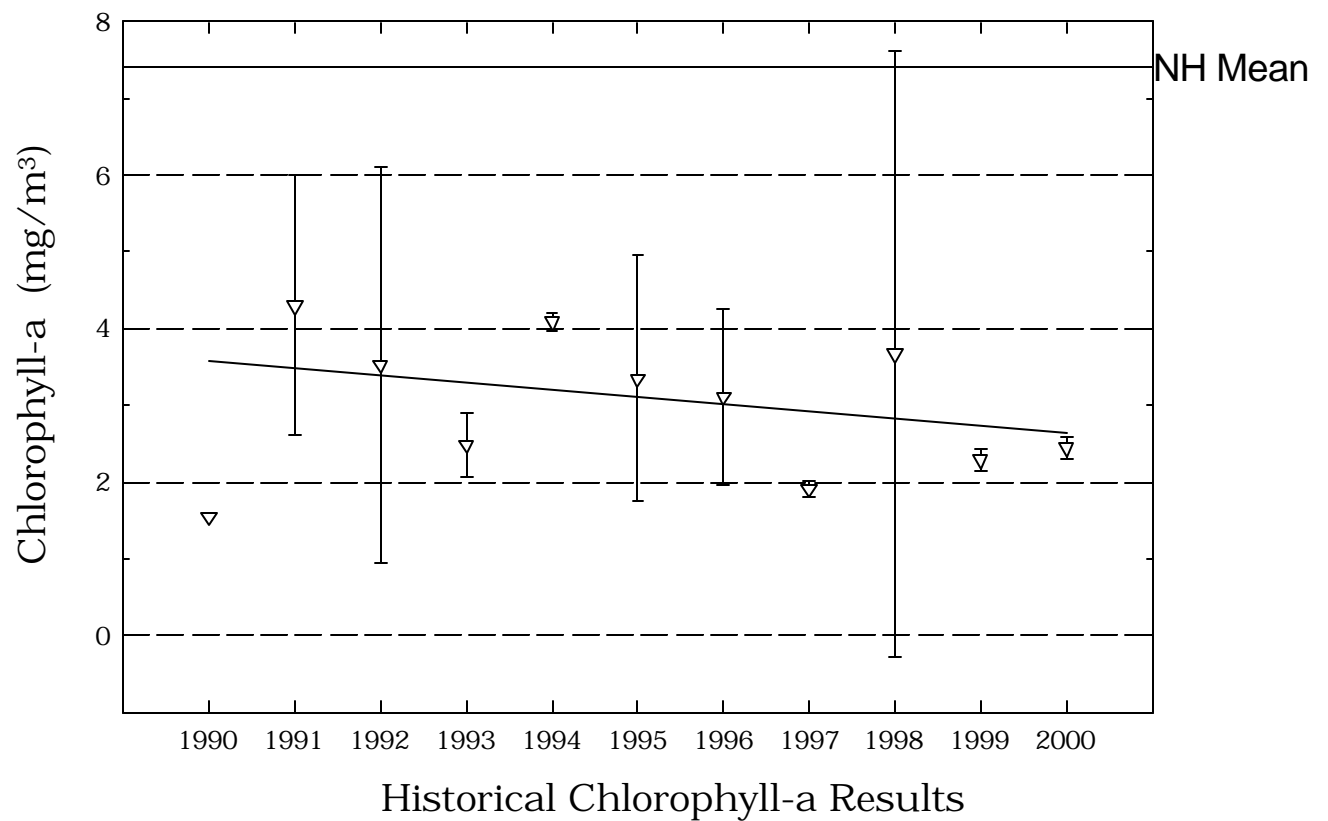
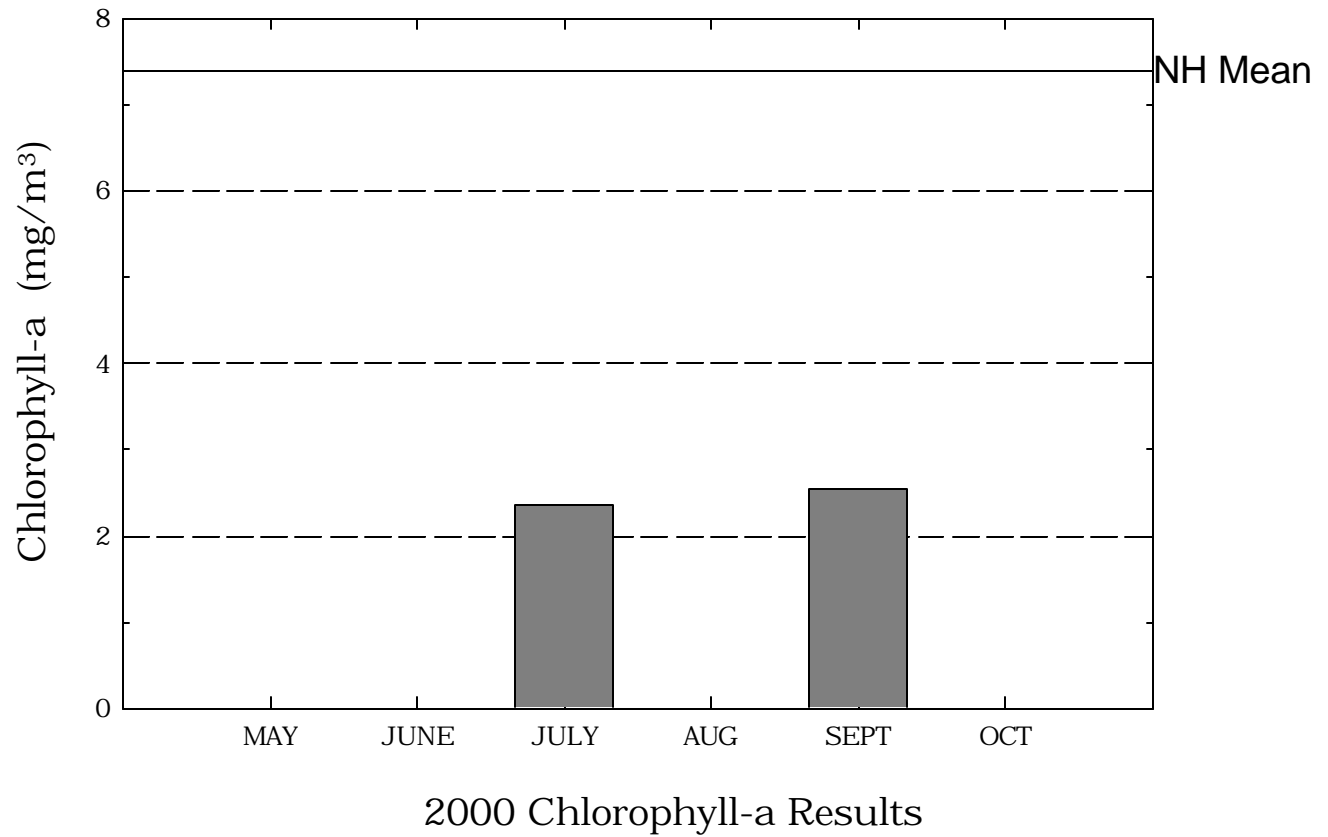
Phosphorus in Lakes, WD-BB-20, NHDES Fact Sheet, (603) 271-3503 or www.state.nh.us

Lake Smarts: The First Lake Maintenance Handbook, A Do-It-Yourself Guide to Solving Lake Problems. The Terrene Institute. (800) 726-4853.

Weed Watchers: An Association to Halt the Spread of Exotic Aquatic Plants, WD-BB-4, NHDES Fact Sheet, (603) 271-3503 or www.state.nh.us

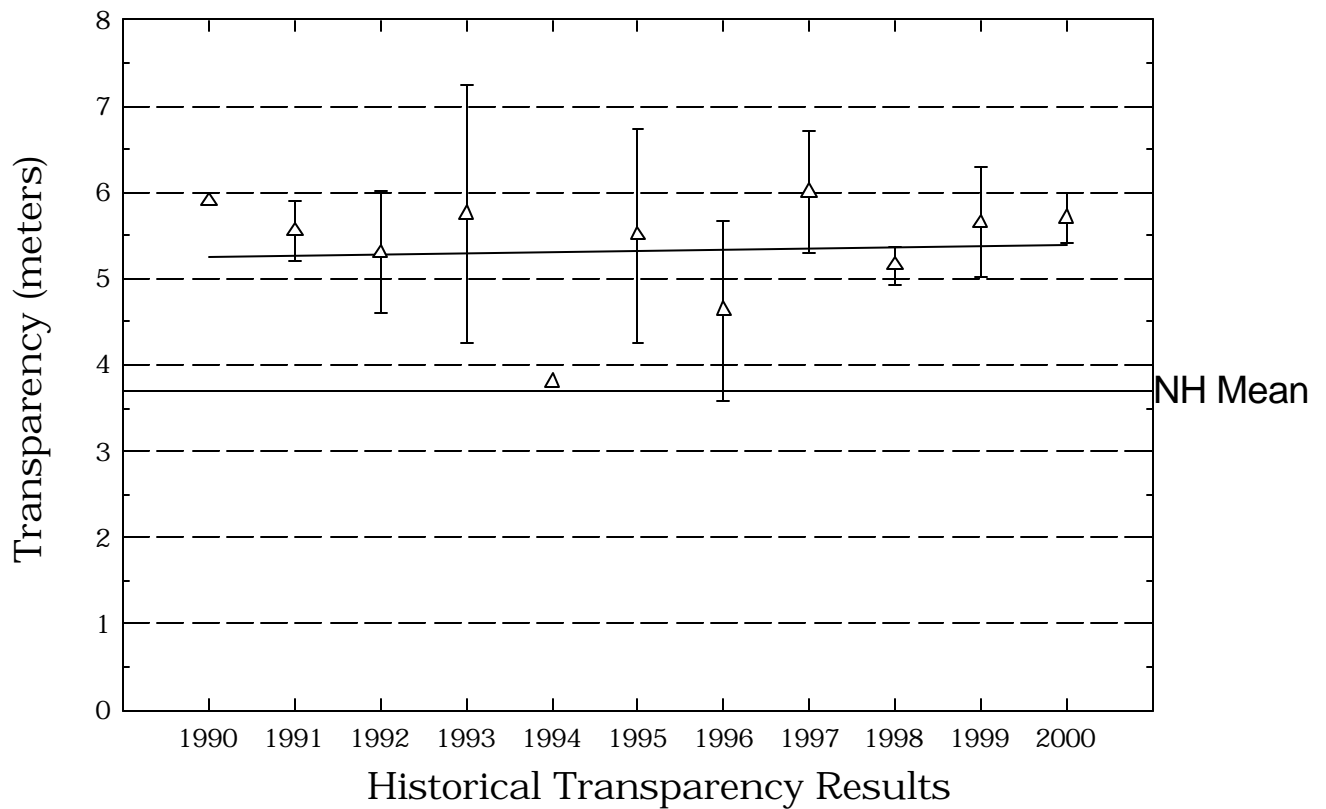
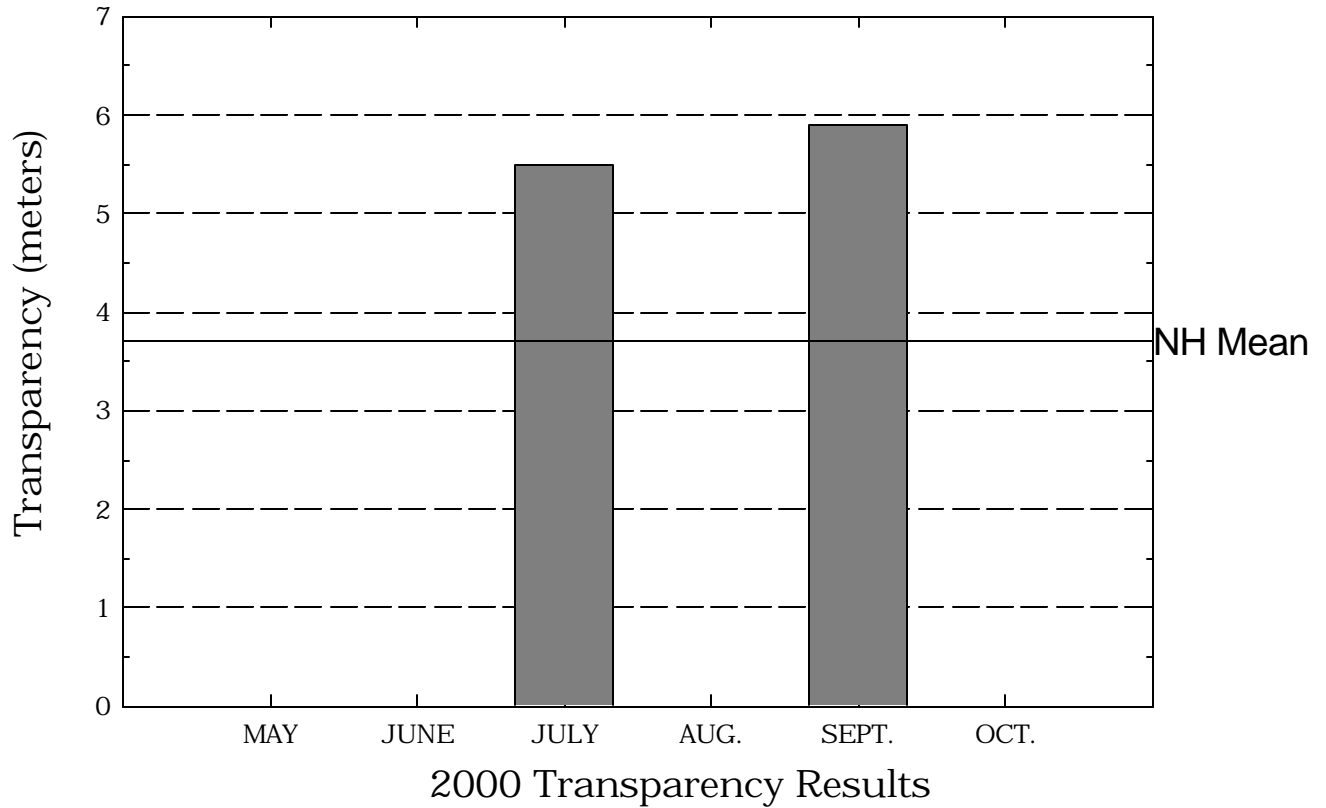
Rockybound Pond

Figure 1. Monthly and Historical Chlorophyll-a Results



Rockybound Pond

Figure 2. Monthly and Historical Transparency Results



Rockybound Pond

Figure 3. Monthly and Historical Total Phosphorus Data.

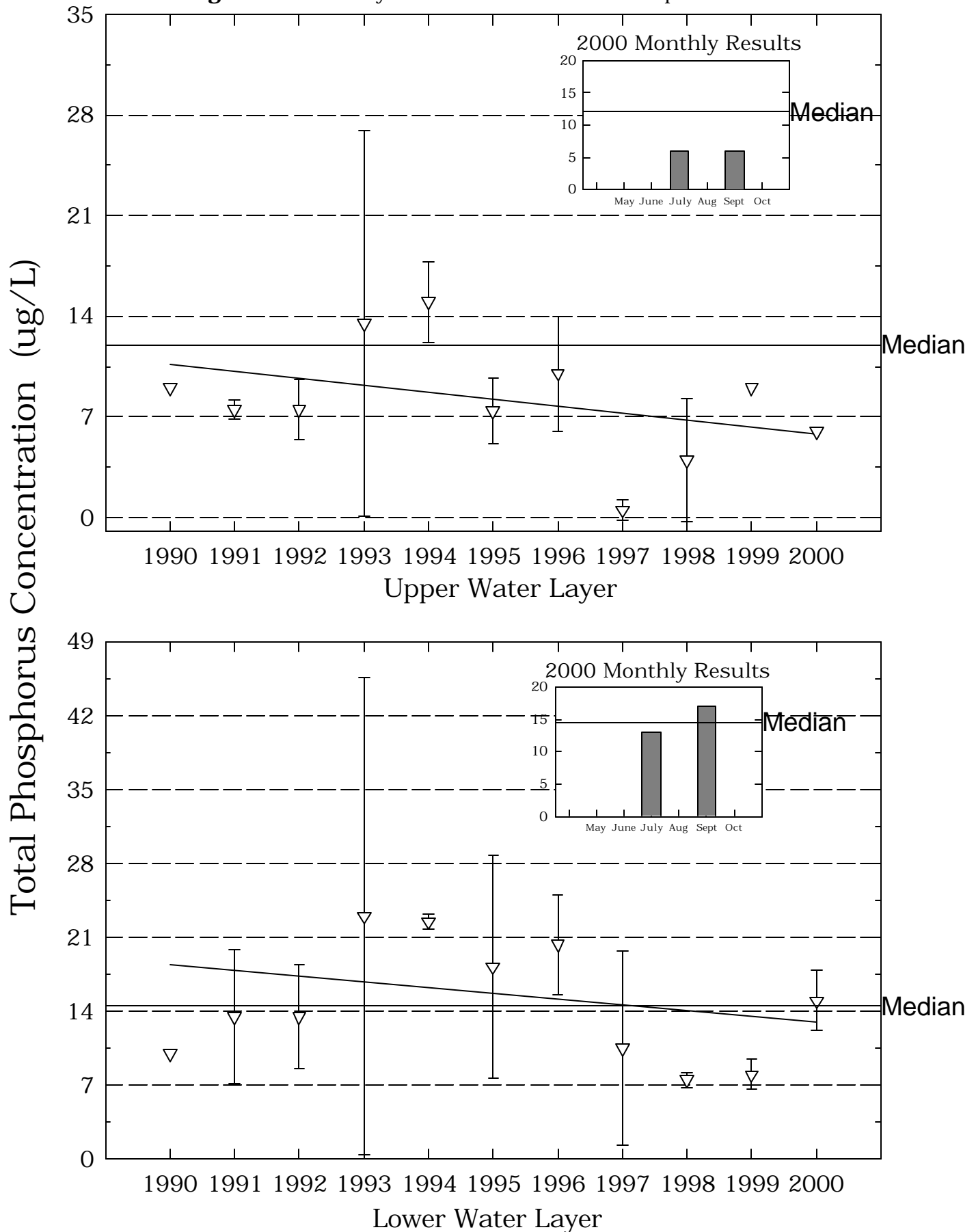


Table 1.**ROCKYBOUND POND****CROYDON**

**Chlorophyll-a results (mg/m³) for current year and historical
sampling periods.**

| Year | Minimum | Maximum | Mean |
|-------------|----------------|----------------|-------------|
| 1990 | 1.54 | 1.54 | 1.54 |
| 1991 | 3.10 | 5.50 | 4.30 |
| 1992 | 1.70 | 5.35 | 3.52 |
| 1993 | 2.18 | 2.77 | 2.47 |
| 1994 | 4.01 | 4.17 | 4.09 |
| 1995 | 1.33 | 5.81 | 3.35 |
| 1996 | 2.18 | 4.38 | 3.11 |
| 1997 | 1.83 | 1.99 | 1.91 |
| 1998 | 0.88 | 6.47 | 3.67 |
| 1999 | 2.18 | 2.39 | 2.28 |
| 2000 | 2.35 | 2.54 | 2.44 |

Table 2.

**ROCKYBOUND POND
CROYDON**

Phytoplankton species and relative percent abundance.

Summary for current and historical sampling seasons.

| Date of Sample | Species Observed | Relative % Abundance |
|-----------------------|-------------------------|---------------------------------|
| 07/31/1990 | ASTERIONELLA | 75 |
| 07/30/1991 | CERATIUM | 70 |
| | CHRYSOSPHAERELLA | 15 |
| 06/22/1992 | DINOBRYON | 39 |
| | CERATIUM | 25 |
| | TABELLARIA | 19 |
| 07/13/1993 | RHIZOLENIA | 23 |
| | ASTERIONELLA | 19 |
| | STAUSTRUM | 16 |
| 06/30/1994 | ASTERIONELLA | 64 |
| | DINOBRYON | 16 |
| 06/15/1995 | ANABAENA | 70 |
| | UROGLENOPSIS | 7 |
| | TABELLARIA | 6 |
| 09/04/1996 | CHRYSOSPHAERELLA | 36 |
| | DINOBRYON | 30 |
| | ASTERIONELLA | 8 |
| 08/22/1997 | MELOSIRA | 38 |
| | MICROCYSTIS | 27 |
| | OSCILLATORIA | 6 |
| 09/15/1998 | DINOBRYON | 73 |
| | ASTERIONELLA | 15 |
| | CHRYSOSPHAERELLA | 6 |
| 09/15/1999 | MICROCYSTIS | 26 |
| | STAUSTRUM | 18 |
| | DINOBRYON | 15 |
| 09/05/2000 | CHRYSOSPHAERELLA | 44 |
| | DINOBRYON | 31 |
| | CERATIUM | |

Table 3.**ROCKYBOUND POND****CROYDON**

**Summary of current and historical Secchi Disk
transparency results (in meters).**

| Year | Minimum | Maximum | Mean |
|-------------|----------------|----------------|-------------|
| 1990 | 5.9 | 5.9 | 5.9 |
| 1991 | 5.3 | 5.8 | 5.5 |
| 1992 | 4.8 | 5.8 | 5.3 |
| 1993 | 4.7 | 6.8 | 5.7 |
| 1994 | 3.8 | 3.8 | 3.8 |
| 1995 | 4.3 | 7.1 | 5.5 |
| 1996 | 3.8 | 5.8 | 4.6 |
| 1997 | 5.5 | 6.5 | 6.0 |
| 1998 | 5.0 | 5.3 | 5.1 |
| 1999 | 5.2 | 6.1 | 5.6 |
| 2000 | 5.5 | 5.9 | 5.7 |

Table 4.

**ROCKYBOUND POND
CROYDON**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| EPILIMNION | 1990 | 7.05 | 7.05 | 7.05 |
| | 1991 | 7.00 | 7.20 | 7.09 |
| | 1992 | 6.25 | 6.40 | 6.32 |
| | 1993 | 7.00 | 7.24 | 7.10 |
| | 1994 | 6.97 | 7.38 | 7.13 |
| | 1995 | 6.94 | 7.35 | 7.11 |
| | 1996 | 6.41 | 7.18 | 6.73 |
| | 1997 | 7.05 | 7.11 | 7.08 |
| | 1998 | 7.11 | 7.12 | 7.11 |
| | 1999 | 7.12 | 7.23 | 7.17 |
| | 2000 | 6.99 | 7.01 | 7.00 |
| HOMA W-3 | 1991 | 7.00 | 7.20 | 7.09 |
| | 1992 | 6.45 | 6.70 | 6.56 |
| | 1993 | 7.00 | 7.30 | 7.12 |
| | 1994 | 7.16 | 7.30 | 7.22 |
| | 1995 | 6.92 | 7.18 | 7.03 |
| | 1996 | 6.67 | 7.25 | 6.87 |
| | 1997 | 6.78 | 7.12 | 6.92 |
| | 1998 | 6.88 | 7.01 | 6.94 |
| | 1999 | 6.97 | 7.18 | 7.06 |
| | 2000 | 6.90 | 6.99 | 6.94 |
| HYPOLIMNION | 1990 | 7.05 | 7.05 | 7.05 |
| | 1991 | 6.60 | 7.20 | 6.80 |

Table 4.

**ROCKYBOUND POND
CROYDON**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| LEWIS W-5 | 1992 | 6.20 | 6.20 | 6.20 |
| | 1993 | 6.50 | 7.06 | 6.70 |
| | 1994 | 6.43 | 6.60 | 6.51 |
| | 1995 | 6.45 | 7.26 | 6.70 |
| | 1996 | 6.32 | 6.57 | 6.45 |
| | 1997 | 6.44 | 6.49 | 6.46 |
| | 1998 | 6.28 | 7.00 | 6.51 |
| | 1999 | 6.68 | 6.74 | 6.71 |
| | 2000 | 6.32 | 6.35 | 6.33 |
| | | | | |
| | 1991 | 7.00 | 7.00 | 7.00 |
| | 1992 | 6.40 | 6.60 | 6.49 |
| | 1993 | 7.00 | 7.21 | 7.09 |
| | 1994 | 7.16 | 7.30 | 7.22 |
| | 1995 | 6.98 | 7.28 | 7.10 |
| | 1996 | 6.90 | 7.20 | 7.02 |
| | 1997 | 7.05 | 7.18 | 7.11 |
| | 1998 | 6.92 | 7.10 | 7.00 |
| | 1999 | 6.92 | 7.23 | 7.05 |
| | 2000 | 6.93 | 6.96 | 6.94 |
| METALIMNION | | | | |
| | 1992 | 6.25 | 6.30 | 6.27 |
| | 1993 | 6.90 | 7.32 | 7.06 |
| | 1994 | 7.05 | 7.20 | 7.12 |
| | 1995 | 6.90 | 7.34 | 7.03 |
| | 1996 | 6.53 | 7.02 | 6.79 |
| | 1997 | 7.05 | 7.06 | 7.06 |

Table 4.

**ROCKYBOUND POND
CROYDON**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|--------------------|------|---------|---------|------|
| METALIMNION | | | | |
| | 1998 | 7.05 | 7.07 | 7.06 |
| | 1999 | 6.10 | 6.10 | 6.10 |
| | 2000 | 6.83 | 7.10 | 6.94 |
| OUTLET W-6 | | | | |
| | 1990 | 7.06 | 7.06 | 7.06 |
| | 1991 | 7.00 | 7.30 | 7.12 |
| | 1992 | 6.40 | 6.40 | 6.40 |
| | 1993 | 6.85 | 7.17 | 6.98 |
| | 1994 | 7.08 | 7.30 | 7.18 |
| | 1995 | 6.88 | 7.22 | 7.02 |
| | 1996 | 6.75 | 7.16 | 6.91 |
| | 1997 | 6.93 | 7.08 | 7.00 |
| | 1998 | 7.02 | 7.03 | 7.03 |
| | 1999 | 6.90 | 7.16 | 7.01 |
| | 2000 | 6.94 | 6.99 | 6.96 |
| PUBLIC BEACH/INLET | | | | |
| | 1990 | 6.30 | 6.30 | 6.30 |
| | 1991 | 7.00 | 7.30 | 7.12 |
| | 1992 | 6.20 | 6.50 | 6.32 |
| | 1993 | 6.90 | 7.25 | 7.04 |
| | 1994 | 7.02 | 7.02 | 7.02 |
| | 1995 | 6.92 | 6.92 | 6.92 |
| | 1996 | 6.87 | 6.87 | 6.87 |
| 1998 | 7.10 | 7.10 | 7.10 | |

Table 4.**ROCKYBOUND POND
CROYDON**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| PUBLIC BEACH | 1994 | 7.21 | 7.21 | 7.21 |
| | 1995 | 7.05 | 7.05 | 7.05 |
| W-1 | 1996 | 6.54 | 6.74 | 6.63 |
| | 1997 | 6.73 | 6.80 | 6.76 |
| | 1998 | 6.86 | 6.86 | 6.86 |
| | 1999 | 6.87 | 6.91 | 6.89 |
| | 2000 | 6.95 | 7.03 | 6.99 |

Table 5.**ROCKYBOUND POND****CROYDON****Summary of current and historical Acid Neutralizing Capacity.****Values expressed in mg/L as CaCO₃.****Epilimnetic Values**

| Year | Minimum | Maximum | Mean |
|-------------|----------------|----------------|-------------|
| 1990 | 7.70 | 7.70 | 7.70 |
| 1991 | 6.90 | 7.00 | 6.95 |
| 1992 | 7.80 | 11.80 | 9.80 |
| 1993 | 9.10 | 9.60 | 9.35 |
| 1994 | 6.70 | 11.00 | 8.85 |
| 1995 | 8.50 | 9.60 | 9.04 |
| 1996 | 7.30 | 7.30 | 7.30 |
| 1997 | 7.30 | 7.40 | 7.35 |
| 1998 | 7.20 | 7.90 | 7.55 |
| 1999 | 6.70 | 8.80 | 7.75 |

Table 6.

**ROCKYBOUND POND
CROYDON**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| EPILIMNION | 1990 | 49.6 | 49.6 | 49.6 |
| | 1991 | 48.8 | 49.6 | 49.2 |
| | 1992 | 46.0 | 49.6 | 47.8 |
| | 1993 | 45.0 | 49.8 | 47.4 |
| | 1994 | 46.9 | 49.4 | 48.1 |
| | 1995 | 47.6 | 52.3 | 50.4 |
| | 1996 | 47.8 | 49.2 | 48.3 |
| | 1997 | 47.3 | 49.4 | 48.3 |
| | 1998 | 50.7 | 51.7 | 51.2 |
| | 1999 | 55.5 | 56.8 | 56.1 |
| | 2000 | 52.2 | 52.7 | 52.4 |
| HOMA W-3 | 1991 | 48.5 | 50.8 | 49.6 |
| | 1992 | 45.0 | 50.1 | 47.5 |
| | 1993 | 46.0 | 48.3 | 47.1 |
| | 1994 | 44.9 | 49.0 | 46.9 |
| | 1995 | 47.0 | 53.0 | 50.0 |
| | 1996 | 47.7 | 48.9 | 48.3 |
| | 1997 | 47.7 | 49.4 | 48.5 |
| | 1998 | 49.8 | 52.5 | 51.1 |
| | 1999 | 55.4 | 56.9 | 56.1 |
| | 2000 | 53.0 | 53.1 | 53.0 |
| HYPOLIMNION | 1990 | 50.2 | 50.2 | 50.2 |
| | 1991 | 47.4 | 49.0 | 48.2 |

Table 6.

**ROCKYBOUND POND
CROYDON**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| | 1992 | 47.0 | 49.8 | 48.4 |
| | 1993 | 47.7 | 49.0 | 48.3 |
| | 1994 | 47.1 | 57.9 | 52.5 |
| | 1995 | 47.3 | 64.4 | 54.1 |
| | 1996 | 51.9 | 59.7 | 56.0 |
| | 1997 | 49.0 | 53.2 | 51.1 |
| | 1998 | 49.7 | 56.3 | 53.0 |
| | 1999 | 55.7 | 57.1 | 56.4 |
| | 2000 | 53.7 | 59.0 | 56.3 |
| LEWIS W-5 | 1991 | 47.9 | 47.9 | 47.9 |
| | 1992 | 45.0 | 49.9 | 47.4 |
| | 1993 | 45.0 | 48.2 | 46.6 |
| | 1994 | 47.4 | 48.9 | 48.1 |
| | 1995 | 48.7 | 52.7 | 50.7 |
| | 1996 | 47.4 | 48.7 | 48.1 |
| | 1997 | 46.9 | 49.4 | 48.1 |
| | 1998 | 49.5 | 51.8 | 50.6 |
| | 1999 | 55.4 | 56.6 | 56.0 |
| | 2000 | 52.2 | 52.6 | 52.4 |
| METALIMNION | 1992 | 46.0 | 50.3 | 48.1 |
| | 1993 | 45.0 | 47.1 | 46.0 |
| | 1994 | 46.0 | 49.2 | 47.6 |
| | 1995 | 47.5 | 53.1 | 50.8 |
| | 1996 | 48.0 | 48.9 | 48.4 |

Table 6.

**ROCKYBOUND POND
CROYDON**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|--------------------|-------------|----------------|----------------|-------------|
| | 1997 | 47.0 | 47.4 | 47.2 |
| | 1998 | 49.7 | 51.6 | 50.6 |
| | 1999 | 59.9 | 59.9 | 59.9 |
| | 2000 | 52.0 | 52.7 | 52.4 |
| OUTLET W-6 | 1990 | 50.0 | 50.0 | 50.0 |
| | 1991 | 48.4 | 49.1 | 48.7 |
| | 1992 | 45.6 | 45.6 | 45.6 |
| | 1993 | 45.0 | 48.4 | 46.7 |
| | 1994 | 47.6 | 48.6 | 48.1 |
| | 1995 | 47.7 | 47.7 | 47.7 |
| | 1996 | 47.7 | 49.0 | 48.3 |
| | 1997 | 47.8 | 50.0 | 48.9 |
| | 1998 | 49.6 | 51.9 | 50.7 |
| | 1999 | 56.1 | 56.5 | 56.3 |
| | 2000 | 52.1 | 52.6 | 52.3 |
| PUBLIC BEACH/INLET | 1990 | 50.2 | 50.2 | 50.2 |
| | 1991 | 48.5 | 48.8 | 48.6 |
| | 1992 | 50.0 | 167.0 | 108.5 |
| | 1993 | 45.0 | 48.0 | 46.5 |
| | 1994 | 47.4 | 47.4 | 47.4 |
| | 1995 | 60.0 | 60.0 | 60.0 |
| | 1996 | 49.7 | 49.7 | 49.7 |
| | 1998 | 52.3 | 52.3 | 52.3 |

Table 6.**ROCKYBOUND POND
CROYDON****Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| PUBLIC BEACH | 1994 | 49.3 | 49.3 | 49.3 |
| | | | | |
| W-1 | 1995 | 52.9 | 52.9 | 52.9 |
| | 1996 | 71.5 | 111.7 | 91.6 |
| | 1997 | 50.6 | 96.8 | 73.7 |
| | 1998 | 49.9 | 49.9 | 49.9 |
| | 1999 | 55.2 | 56.8 | 56.0 |
| | 2000 | 52.0 | 52.6 | 52.3 |

Table 8.

ROCKYBOUND POND

CROYDON

Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.

| Station | Year | Minimum | Maximum | Mean |
|-------------|------|---------|---------|------|
| EPILIMNION | 1990 | 9 | 9 | 9 |
| | 1991 | 7 | 8 | 7 |
| | 1992 | 6 | 9 | 7 |
| | 1993 | 4 | 23 | 13 |
| | 1994 | 13 | 17 | 15 |
| | 1995 | 5 | 11 | 7 |
| | 1996 | 6 | 14 | 10 |
| | 1997 | 0 | 1 | 0 |
| | 1998 | < 1 | 7 | 4 |
| | 1999 | 9 | 9 | 9 |
| | 2000 | 6 | 6 | 6 |
| HOMA W-3 | 1991 | 6 | 10 | 8 |
| | 1992 | 6 | 7 | 6 |
| | 1993 | 1 | 4 | 2 |
| | 1994 | 7 | 8 | 7 |
| | 1995 | 4 | 9 | 6 |
| | 1996 | 5 | 11 | 8 |
| | 1997 | 3 | 10 | 6 |
| | 1998 | 5 | 6 | 5 |
| | 1999 | 6 | 6 | 6 |
| | 2000 | 3 | 6 | 4 |
| HYPOLIMNION | 1990 | 10 | 10 | 10 |
| | 1991 | 9 | 18 | 13 |

Table 8.

ROCKYBOUND POND

CROYDON

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| | 1992 | 10 | 17 | 13 |
| | 1993 | 7 | 39 | 23 |
| | 1994 | 22 | 23 | 22 |
| | 1995 | 6 | 35 | 18 |
| | 1996 | 15 | 24 | 20 |
| | 1997 | 4 | 17 | 10 |
| | 1998 | 7 | 8 | 7 |
| | 1999 | 7 | 9 | 8 |
| | 2000 | 13 | 17 | 15 |
| INLET | | | | |
| | 1994 | 16 | 16 | 16 |
| LEWIS W-5 | | | | |
| | 1991 | 16 | 16 | 16 |
| | 1992 | 6 | 6 | 6 |
| | 1993 | 1 | 4 | 2 |
| | 1994 | 7 | 9 | 8 |
| | 1995 | 5 | 6 | 5 |
| | 1996 | 5 | 7 | 6 |
| | 1997 | 2 | 2 | 2 |
| | 1998 | 4 | 5 | 4 |
| | 1999 | 2 | 7 | 4 |
| | 2000 | 6 | 6 | 6 |
| METALIMNION | | | | |
| | 1992 | 5 | 11 | 8 |
| | 1993 | 7 | 14 | 10 |
| | 1994 | 10 | 23 | 16 |

Table 8.**ROCKYBOUND POND****CROYDON**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|--------------------|-------------|----------------|----------------|-------------|
| | 1995 | 5 | 15 | 10 |
| | 1996 | 6 | 12 | 9 |
| | 1997 | 3 | 4 | 3 |
| | 1998 | 2 | 3 | 2 |
| | 1999 | 9 | 9 | 9 |
| | 2000 | 4 | 6 | 5 |
| OUTLET W-6 | | | | |
| | 1990 | 7 | 7 | 7 |
| | 1991 | 7 | 8 | 7 |
| | 1992 | 8 | 8 | 8 |
| | 1993 | 11 | 11 | 11 |
| | 1994 | 9 | 10 | 9 |
| | 1995 | 6 | 8 | 7 |
| | 1996 | 6 | 13 | 9 |
| | 1997 | 2 | 4 | 3 |
| | 1998 | 2 | 5 | 3 |
| | 1999 | 6 | 6 | 6 |
| | 2000 | 4 | 7 | 5 |
| PUBLIC BEACH/INLET | | | | |
| | 1990 | 18 | 18 | 18 |
| | 1991 | 6 | 12 | 9 |
| | 1992 | 6 | 31 | 18 |
| | 1993 | 1 | 5 | 3 |
| | 1994 | 7 | 7 | 7 |
| | 1995 | 27 | 27 | 27 |
| | 1996 | 7 | 7 | 7 |

Table 8.**ROCKYBOUND POND****CROYDON**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| PUBLIC BEACH | 1998 | 7 | 7 | 7 |
| | 1994 | 12 | 12 | 12 |
| W-1 | 1995 | 10 | 10 | 10 |
| | 1996 | 16 | 23 | 19 |
| | 1997 | 9 | 49 | 29 |
| | 1998 | 31 | 31 | 31 |
| | 1999 | 4 | 10 | 7 |
| | 2000 | 5 | 6 | 5 |

Table 9.
ROCKYBOUND POND
CROYDON

Current year dissolved oxygen and temperature data.

| Depth (meters) | Temperature (celsius) | Dissolved Oxygen (mg/L) | Saturation (%) |
|--------------------------|---------------------------------|-----------------------------------|--------------------------|
| September 5, 2000 | | | |
| 0.1 | 21.1 | 7.6 | 85.5 |
| 1.0 | 21.1 | 7.6 | 85.4 |
| 2.0 | 21.1 | 7.7 | 86.4 |
| 3.0 | 21.0 | 7.6 | 85.2 |
| 4.0 | 20.9 | 7.6 | 85.1 |
| 5.0 | 20.6 | 7.7 | 85.2 |
| 6.0 | 16.6 | 11.1 | 114.4 |
| 7.0 | 13.8 | 3.9 | 37.5 |
| 8.0 | 12.0 | 0.8 | 7.1 |
| 9.0 | 11.1 | 0.9 | 8.5 |

Table 10.

**ROCKYBOUND POND
CROYDON**

Historic Hypolimnetic dissolved oxygen and temperature data.

| Date | Depth (meters) | Temperature (celsius) | Dissolved Oxygen (mg/L) | Saturation (%) |
|--------------------|--------------------------|---------------------------------|-----------------------------------|--------------------------|
| July 31, 1990 | 7.0 | 12.9 | 11.0 | 104.1 |
| June 22, 1992 | 8.5 | 7.2 | 2.2 | 18.1 |
| July 13, 1993 | 7.5 | 12.2 | 11.0 | 102.0 |
| June 30, 1994 | 8.5 | 9.7 | 1.7 | 14.0 |
| June 15, 1995 | 8.5 | 10.0 | 3.9 | 34.0 |
| September 4, 1996 | 8.5 | 10.0 | 0.3 | 3.0 |
| August 22, 1997 | 7.5 | 13.0 | 0.2 | 2.0 |
| September 15, 1998 | 9.0 | 12.2 | 0.2 | 2.0 |
| September 15, 1999 | 8.5 | 14.4 | 0.5 | 5.0 |
| September 5, 2000 | 9.0 | 11.1 | 0.9 | 8.5 |

Table 11.

**ROCKYBOUND POND
CROYDON**

**Summary of current year and historic turbidity sampling.
Results in NTU's.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| EPILIMNION | 1992 | 0.6 | 0.6 | 0.6 |
| | 1993 | 0.6 | 0.6 | 0.6 |
| | 1994 | 1.2 | 1.2 | 1.2 |
| | 1995 | 0.6 | 1.4 | 0.9 |
| | 1996 | 0.8 | 1.1 | 0.9 |
| | 1997 | 0.3 | 0.5 | 0.4 |
| | 1998 | 0.4 | 0.8 | 0.6 |
| | 1999 | 0.5 | 0.8 | 0.6 |
| | 2000 | 0.2 | 1.2 | 0.7 |
| HOMA W-3 | 1992 | 0.6 | 0.6 | 0.6 |
| | 1993 | 0.7 | 0.7 | 0.7 |
| | 1994 | 0.9 | 0.9 | 0.9 |
| | 1995 | 0.8 | 0.8 | 0.8 |
| | 1996 | 0.9 | 0.9 | 0.9 |
| | 1997 | 0.3 | 0.7 | 0.5 |
| | 1998 | 0.6 | 0.9 | 0.7 |
| | 1999 | 0.4 | 0.9 | 0.6 |
| | 2000 | 0.2 | 0.9 | 0.5 |
| HYPOLIMNION | 1992 | 1.2 | 1.2 | 1.2 |
| | 1993 | 2.6 | 2.6 | 2.6 |
| | 1994 | 2.9 | 2.9 | 2.9 |
| | 1995 | 1.3 | 3.8 | 2.1 |
| | 1996 | 2.0 | 3.3 | 2.6 |
| | 1997 | 0.7 | 1.5 | 1.1 |

Table 11.

**ROCKYBOUND POND
CROYDON**

**Summary of current year and historic turbidity sampling.
Results in NTU's.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| LEWIS W-5 | 1998 | 0.3 | 2.4 | 1.3 |
| | 1999 | 0.7 | 1.7 | 1.2 |
| | 2000 | 0.9 | 1.3 | 1.1 |
| LEWIS W-5 | 1992 | 0.7 | 0.7 | 0.7 |
| | 1993 | 0.6 | 0.6 | 0.6 |
| | 1994 | 0.9 | 0.9 | 0.9 |
| | 1995 | 0.9 | 0.9 | 0.9 |
| | 1996 | 1.0 | 1.0 | 1.0 |
| | 1997 | 0.5 | 0.7 | 0.6 |
| | 1998 | 0.3 | 0.9 | 0.6 |
| | 1999 | 0.4 | 0.9 | 0.6 |
| | 2000 | 0.2 | 0.6 | 0.4 |
| METALIMNION | 1992 | 0.8 | 0.8 | 0.8 |
| | 1993 | 0.8 | 0.8 | 0.8 |
| | 1994 | 1.3 | 1.3 | 1.3 |
| | 1995 | 0.6 | 1.7 | 1.0 |
| | 1996 | 0.8 | 1.6 | 1.2 |
| | 1997 | 0.4 | 0.6 | 0.5 |
| | 1998 | 0.6 | 1.0 | 0.8 |
| | 1999 | 1.0 | 1.0 | 1.0 |
| | 2000 | 0.3 | 1.0 | 0.6 |
| OUTLET W-6 | 1992 | 0.5 | 0.5 | 0.5 |
| | 1993 | 0.6 | 0.6 | 0.6 |
| | 1994 | 1.1 | 1.1 | 1.1 |
| | 1995 | 1.1 | 1.1 | 1.1 |

Table 11.

**ROCKYBOUND POND
CROYDON**

**Summary of current year and historic turbidity sampling.
Results in NTU's.**

| Station | Year | Minimum | Maximum | Mean |
|--------------------|-------------|----------------|----------------|-------------|
| | 1996 | 1.7 | 1.7 | 1.7 |
| | 1997 | 0.3 | 0.6 | 0.4 |
| | 1998 | 0.5 | 0.8 | 0.6 |
| | 1999 | 0.8 | 1.1 | 0.9 |
| | 2000 | 0.3 | 1.5 | 0.9 |
| PUBLIC BEACH/INLET | | | | |
| | 1992 | 2.6 | 2.6 | 2.6 |
| | 1993 | 0.6 | 0.6 | 0.6 |
| PUBLIC BEACH | | | | |
| | 1994 | 0.9 | 0.9 | 0.9 |
| W-1 | | | | |
| | 1995 | 1.0 | 1.0 | 1.0 |
| | 1996 | 1.5 | 3.0 | 2.2 |
| | 1997 | 1.7 | 3.8 | 2.7 |
| | 1998 | 1.2 | 1.2 | 1.2 |
| | 1999 | 0.5 | 0.9 | 0.7 |
| | 2000 | 0.2 | 0.8 | 0.5 |

Table 12.

**ROCKYBOUND POND
CROYDON**

**Summary of current year bacteria sampling.
Results in counts per 100ml.**

| Location | Date | E. Coli <small>See Note Below</small> |
|-----------------|-------------|---|
| HOMA W-3 | July 3 | 24 |